

### **REMARKS**

In the Office Action dated May 29, 2007, all claims stand rejected as being obvious over the cited art. More particularly, claims 21, 56, 57, 60-62, 64-66, 68, 73, 74, 76 and 77 are rejected over EP 0 547 533 to Ladeur in view of GB 1,194,886 to Staunton; claims 2, 3, 6, 7, 58, 63, 71, 72, 75, and 79-85 are rejected over Ladeur in view of Staunton and in further view of US 3,347,736 to Sissons; claims 8, 12 and 15 are rejected over Ladeur in view of Staunton and in further view of US 6,269,759 to Zafiroglu; claims 9, 11 and 13 are rejected over Ladeur in view of Staunton, in further view of Zafiroglu and in further view of US 4,576,840 to Murata; claims 24 and 25 are rejected over Ladeur in view of Staunton and in further view of US 2003/0099810 to Allison; claims 59, 69, 70, 78, 86-92 are rejected over Ladeur in view of Staunton, in further view of Sissons, and in further view of US 6,866,923 to Kimbrell.

In this group of claims prior to the above amendments, claims 56, 57, 58 and 59 were the only independent claims and represent the four embodiments of the present invention. In all of the obviousness rejections, Ladeur is the primary reference.

The kind courtesy extended by Supervisory Primary Examiner (SPE) Morris and Examiner Matzek to Applicant and his attorney during the interview on July 31, 2007, is greatly appreciated. Three suggestions were made the Examiners during the interview and summarized in the Interview Summary:

- i. reword the claims to define the structure from one surface to the other surface,
- ii. for claims reciting at least three layers including a backing layer, such as former dependent claims 22 and similar former dependent claims, such as claims 73, 81 and 88, the bonding between some of the legs (or piles) and the backing layer distinguishes this structure from the known art, in which the piles form the uppermost surface and would not be bonded to the backing, and
- iii. for claims reciting at least two layers, such as independent claim 56 as well as independent claims 57, 58 and 69, the subject matters of dependent claims 64 and 65 (*i.e.*, the adhesive layer penetrates from about  $\frac{1}{4}$  to  $\frac{3}{4}$  into the fibrous face layer) is important to distinguish over the known art; however, SPE Morris indicated that he recalls possible other two-layer structure composites. Also SPE Morris invited Applicant to provide comments/arguments to distinguish U.S. 4,389,443 to Thomas et al, albeit the '443 may not

be the only two-layer structure that may eventually be uncovered by additional searches.

These suggestions are greatly appreciated and the Applicant has implemented all the suggestions as summarized below.

I. Concerning the first suggestion, Applicant has amended independent claims 56-59 to define the structure of the claimed composites. More specifically, the fibrous face layer and the adhesive layer have been amended to have a top surface and a bottom surface in claims 57-59. The bottom surface of the fibrous face layer faces the top surface of the adhesive layer in claims 56-59. The phrase “the legs are dependent from” has been replaced by “the legs are extending away from the top surface of the fibrous face layer,” and in claim 56 the legs also extend “through the bottom surface of the fibrous face layer.” The verb “anchored” has been replaced by “bonded” in claims 57-59 and by “thermally bonded” in claim 56.

II. Concerning the second suggestion or the three-layer structure suggestion, Applicant has incorporated the subject matter of dependent claims 22, 73, 81 and 88, which recites a third layer or a backing layer into independent claims 56, 57, 58 and 59, respectively. Additionally, independent claim 56 is further amended to recite that at least some of the legs are bonded to the backing layer and independent claims 57-59 are further amended to recite that the adhesive layer is at least partially bonded to the backing layer. Dependent claims 22, 73, 81 and 88 are canceled, as well as dependent claim 21 for being unnecessary in view of the amendments to independent claim 56. This distinguishes independent claims 56, 57, 58 and 59 over all the pile carpeting references of record, including Ladeur.

More specifically, claims 56, 57, 58 and 59 are being rejected as being obvious over various combinations of prior art references. The primary reference in all of these obviousness rejections is the Ladeur reference. Ladeur discloses a conventional tufted pile carpet, wherein the yarns are inserted into a primary backing (or “base fabric”) prior to being bonded to a composite secondary backing. None of the necessary elements of the present invention, *i.e.*, fibers needle-punched through the adhesive layer (claim 56), legs formed from undulated folds or gathers from the gathered fabric face layer (claim 57), knit and woven fabrics with the pile face placed against the adhesive layer (claim 58)

and brushed/sanded knit or woven with the brushed/sanded face facing the adhesive (claim 59), are present or implied in Ladeur.

Importantly, the piles shown in Ladeur are not bonded to an adhesive layer, since these conventional piles are designed to be the top surface of the pile carpet. On the other hand, in claims 56-59 the legs are bonded to the adhesive layer, and as defined by the amended claims the legs would not form the top surface of the composite. For this reason alone, claims 56, 57, 58 and 59 are patentable over these combinations of references.

Additionally, with respect to claims 56 and 57 the Staunton reference is used in combination with Ladeur to support the obviousness rejection. Staunton does not remedy the deficiency of Ladeur. Staunton discloses a hard flooring formed from conventional pile or tuft carpets completely impregnated with resin, but does not disclose a backing layer bonded to at least some of the legs with respect to claim 56, and does not disclose a backing layer bonded at least partially to the adhesive layer with respect to claim 57. Hence, claims 56 and 57, as amended, are patentable over Ladeur and Staunton, singly or in combination.

With respect to claim 58, the Sissons reference is used in combination with Ladeur and Staunton to support the obviousness rejection. Staunton discloses another needle-punched fabrics with piles (28, 32) forming the top surface of fabric. These piles or legs are not formed from a knit or woven fabric, as claimed. Furthermore, these piles or legs disclosed in Sissons are not bonded to an adhesive layer, which is bonded at least partially to a backing layer. Hence, claim 58, as amended, is patentable over Ladeur, Staunton and Sissons, singly or in combination.

With respect to claim 59, the Kimbrell reference is used in combination with Ladeur, Staunton and Sissons to support the obviousness rejection. The Examiner admits that Ladeur, Staunton and Sissons are silent with regards to sanding and shearing the woven face fabric, and applies Kimbrell for the teaching of shearing and cutting of the fabric face. However, Kimbrell only teaches shearing and cutting of the fabric face to make the top surface more desirable, but does not teach that legs formed from the sheared and cut fabric face being bonded to the adhesive layer, as claimed in claim 59. Hence, as amended, claim 59 is patentable over Ladeur, Staunton, Sissons and Kimbrell, singly or in combination.

III. The third suggestion is to define a two layer-structure with the depth of penetration of adhesive from the adhesive layer into the fibrous face layer is about  $\frac{1}{4}$  to  $\frac{3}{4}$  of the fibrous layer and the top surface of the fibrous layer being substantially free of adhesive, *i.e.*, dependent claims 64 and 65 and similar claims

With respect to the first embodiment (FIGS. 1 and 5-13), Applicant has rewritten claim 64, which formerly depended on claim 56, in independent form to include the relevant elements from claim 56 (without the third backing layer) and the element from dependent claim 65. Claim 65 is canceled. Amended claim 64 is patentable over Thomas '443. Thomas '443 discloses a two-layer structure that is formed from a web (14) needle-punched twice (at 15 and at 17) before having an adhesive/latex applied on back side (20), which is the same side as the needle entrance. This is opposite to the present first embodiment where the adhesive is bonded to side where the legs exit. No part of web (14) is needle-punched through adhesive/latex layer 24. Contrary to Thomas '443, amended claim 64 recites a composite that comprises "legs of the fibrous face layer [that] are needled through the face layer, and at least some of the legs are needled through the adhesive layer." This increases the structural integrity of the claimed composite. Hence, amended independent claim 64 is patentable over Thomas '443.

Amended claim 64 is also patentable over the obviousness rejections stated in the Office Action, because the primary reference Ladeur does not disclose fibers/legs needle-punched through an adhesive layer. Ladeur also does not show any penetration of the adhesive from the adhesive layer into fibrous face layer. None of the cited secondary and tertiary references can remedy the deficiency of Ladeur. Concerning the secondary reference Staunton, this reference discloses hard flooring formed from conventional pile or tuft carpets completely impregnated with resin and hence does not have a top surface substantially free of adhesive.

With respect to the last embodiment (FIGS. 4, 28 and 30), Applicant has rewritten claim 91, which formerly depended on independent claim 59, in independent form to include the relevant elements from claim 59 (without the third backing layer) and the element from dependent claim 92. Claim 65 is canceled. Amended claim 91 is patentable over Thomas '443. Thomas '443 discloses a two-layer structure that has a

needled punched fibrous layer (14) and an adhesive coating (24) on the bottom of the fibrous layer. The fibrous layer (14) has loops (18) that are cut by tigering wires (30). However, the cut loops of Thomas '443 are not placed against an adhesive layer and bonded in the adhesive layer, unlike claim 91. Furthermore, claim 91 recites that the fibrous layer comprises a woven or a knit, contrary to the needle-punched layer disclosed in Thomas '443. For this additional reason, claim 91 is patentable over Thomas '443.

In the pending Office Action, claim 91 is rejected over a combination of Ladeur, Staunton, Sissons and Kimbrell. The Examiner admits that Ladeur, Staunton and Sissons are silent with regards to sanding and shearing the woven face fabric, and applies Kimbrell for the teaching of shearing and cutting of the fabric face. However, Kimbrell only teaches shearing and cutting of the fabric face to make the top surface more desirable, but does not teach that legs formed from the sheared and cut fabric face being bonded to the adhesive layer, as claimed in claim 91. Hence, claim 91 is patentable over the cited art.

Applicant submits that all claims are now in condition for allowance, early notice of which is respectfully requested. A \$210 fee for two additional independent claims is submitted herewith, and a petition for a one-month extension of time and associated \$60 fee are also attached. No other fees are believed due for the submission of this amendment. Should any additional fees in fact be due, please charge such fees to Deposit Account No. 50-1980.

Respectfully submitted,

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Enclosure:

Fees for two (2) additional independent claims  
1 month extension and fee.